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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,326	02/24/2004	Fredric J. Cohen	X-11057C	9685

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EXAMINER	
DELACROIX MUIRHEI, CYBILLE	
ART UNIT	**PAPER NUMBER**
1614	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/785,326	COHEN ET AL.	
	Examiner	Art Unit	
	Cybille Delacroix-Muirheid	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14,18,19,23 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14, 18-19, 23, 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

The following is responsive to the preliminary amendment received Feb. 24, 2004.

Status of the claim(s)

Claims 1-13, 15-17, 20-22, 24, 26-144 are cancelled.

No new claims are added. Claims 14, 18-19, 23, 25 are presented for prosecution on the merits.

Priority

If applicant desires priority under 35 U.S.C. 120 based upon a previously filed application, specific reference to the earlier filed application(s) must be made in the instant application. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph unless it appears in an application data sheet. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the

application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

PLEASE NOTE: since no specific reference to any of the earlier filed applications (other than the two provisional applications) appears in the specification, and since

there is no application data sheet describing the continuing data, the effective filing date, for purposes of this office action, is considered to be Feb. 24, 2004.

Claim Objection(s)

1. Claim 14 is objected to because of the following informalities: in claim 14, lines 3-4, the language "diagnosed to be in need of treatment to block the estrogenic activation of estrogen dependent breast cancers" gives claim 14 an awkward reading. The Examiner respectfully suggests canceling this phrase. Appropriate correction is required.

Information Disclosure Statement(s)

Applicant's Information Disclosure Statement received Feb. 24, 2004 has been considered. Please refer to Applicant's copy of the 1449 submitted herewith.

Claim Rejection(s)—35 USC 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 14, 18-19, 23, 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The factors to be considered in determining whether a disclosure meets the enablement requirement of 35 USC 112, first paragraph, have been described in In

re Wands, 8 USPQ2d 1400 (Fed. Cir. 1988). Among the factors are: (1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claimed; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary. When the above factors are weighed, it is the examiner's position that one skilled in the art could not practice the invention without undue experimentation.

(1) The nature of the invention

The claims are drawn to a method for preventing breast cancer by administering to a post-menopausal female an effective amount of the compound represented by the formula (chemical name: raloxifene).

(2) The state of the prior art

The art recognizes the treatment of various cancers such as breast cancer. However, complete "prevention" has yet to be recognized. For example, McGuire et al. disclose that by the time breast cancer is diagnosed, the cancer has often already spread to the lymph nodes and that the only therapeutic approach involves treatment of the breast cancer whether it is primary or advanced. Please see page 1348, first and second full paragraph under the section Treatment of Primary Breast Cancer and page 1352, first full paragraph under Treatment of Advanced Breast Cancer.

(3) The relative skill of those in the art

The relative skill of those in the art is high.

(4) The predictability or unpredictability of the art

The unpredictability of the pharmaceutical and chemical art is high.

(5) The breadth of the claims

The claims are only drawn to the prevention of breast cancer in post-menopausal females.

(6) The amount of direction or guidance presented

The claimed method requires the "prevention" of breast cancer in post-menopausal women, that is to say, a method of thwarting or warding of breast cancer in post-menopausal women. However, Applicant's specification provides no guidance to enable one of ordinary skill in the art to practice the claimed method. Instead there appears to be guidance on reducing the likelihood of breast cancer in post-menopausal women (please see page 20 etc.)

(7) The presence or absence of working examples

The specification describes a "test procedure", starting at page 20, involving post-menopausal women with established osteoporosis. Results from the test procedure demonstrate a decreased incidence of breast cancer rather than complete "prevention."

(8) The quantity of experimentation necessary

Since (1) the current therapeutic approach in the art is to the treatment and not the prevention of breast cancer and (2) the specification lacks guidance or working examples to practice the claimed method, one of ordinary skill in the art would be burdened with undue experimentation to completely prevent or ward off breast cancer in a post-menopausal human female.

The Examiner would favorably consider an amendment to the claims wherein "preventing" is cancelled and language such as "reducing" be added to the claims. For example, an acceptable amendment to the claim could be –A method for reducing the likelihood of breast cancer in a post-menopausal human female comprising administering to the post-menopausal human female for a sufficient term, a dose of from.....--.

Claim Rejection(s)—35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 14, 18-19, 23, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arbuthnot et al., 6,458,811.

Arbuthnot et al. disclose a method of preventing breast cancer in a woman, the method comprising administering an effective amount (50-150 mg/day, e.g. 60 mg/day) of raloxifene, or the HCl thereof, to a woman in need of such prevention. Please see the abstract; col. 3, lines 5-11; col. 30, lines 2-6 and lines 37-38; Formulations 17-19; claim 14.

Arbuthnot et al. do not specifically disclose preventing breast cancer in a post-menopausal woman; however, Arbuthnot et al. disclose that raloxifene exhibits activity against human mammary tumor derived cell line and this has potential use in preventing breast cancer (col. 2, lines 15-39) and one of ordinary skill in the art would reasonably expect raloxifene to exhibit anti-breast cancer activity in post-menopausal women.

Concerning the time needed for treatment (claim 19), the Examiner respectfully submits that length of treatment is an art-recognized result-effective variable and it would have been obvious to one of ordinary skill in the art to modify it in the method of Arbuthnot et al.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 14, 18-19, 23, 25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 14, 17 of U.S. Patent No. 6,458,811. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant application and USPN '811 claim a method for preventing breast cancer in a female by administering effective amounts of raloxifene, i.e. the compound represented by the claimed formulae.

The difference between the instant application and USPN '811 is that USPN '811 does not specifically claim preventing cancer in a post-menopausal female. However, it would have been obvious to modify the claims to prevent breast cancer in a post-menopausal woman because one of ordinary skill in the art would reasonably expect raloxifene to be effective in preventing breast cancer in post-menopausal females. Moreover, the claims of USPN '811 are broader and encompass the more specific methods claimed in the instant application.

Concerning the dosages in claim 14 of the instant application, it would have been obvious to one of ordinary skill in the art to determine dosage amounts effective in preventing breast cancer.

5. Claims 14, 18-19, 23, 25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,303,634. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant application and USPN '634 claim a method for preventing breast cancer in a human, e.g. post-menopausal female, the method comprising administering to the female an effective amount of raloxifene, i.e. the compound represented by the claimed formulae.

The difference between the claims of the instant application and those of USPN '634 is that USPN '634 does not specifically claim administering 55-65 mg of raloxifene to the female patient.

However, since the dependent claims of USPN '634 claim a dosage ranging from 30-200 mg/day, it would have been obvious to one of ordinary skill in the art to further modify the dosage amounts within this range such that said amounts are effective to prevent the breast cancer in a female. Finally, the claims of USPN '634 are broader and encompass the more specific method claims of the instant application.

Conclusion

Claims 14, 18-19, 23, 25 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Cybille Delacroix-Muirheid** whose telephone number is **571-272-0572**. The examiner can normally be reached on Mon-Thurs. from 8:30 to 6:00 as well as every other Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher Low**, can be reached on **571-272-0951**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CDM
Sept. 20, 2004

Cybille Delacroix-Muirheid
Patent Examiner Group 1600